

LIGHT! : THE TUTORIAL

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Prerequisites

- Introductory Tutorial
- Events
- Loops

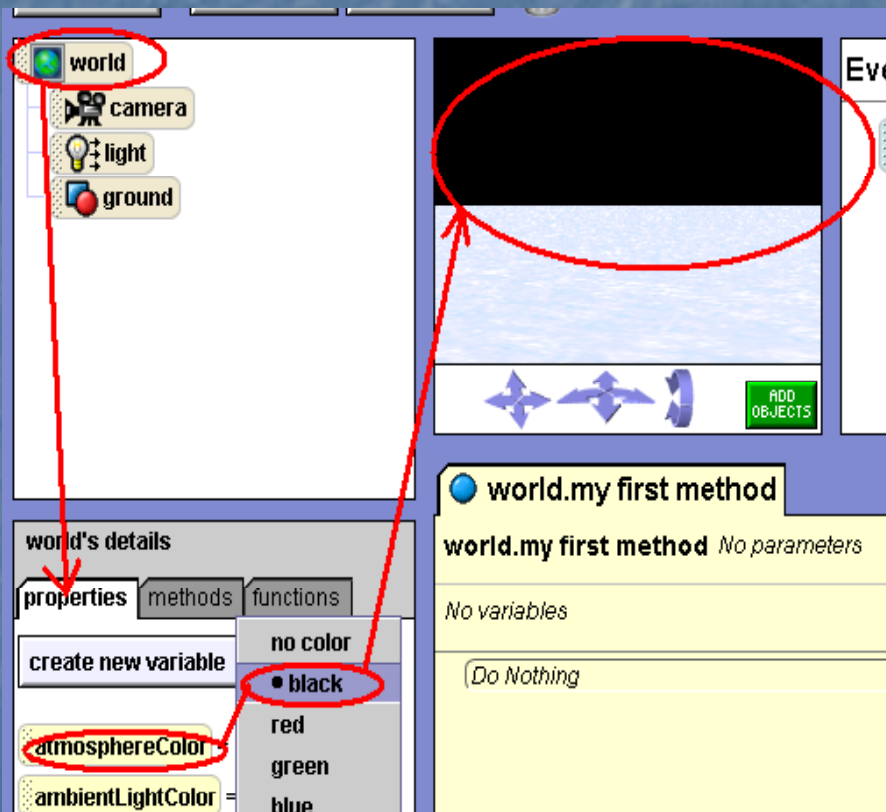
The purpose of this tutorial is to give an introduction to the types of light that Alice can manipulate.

Getting Started



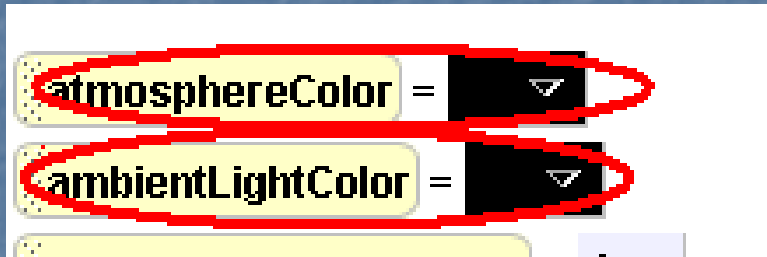
- Lets start with a blank world.
- Snow is easiest to use for this because it reflects light so well.
- Open a new world to begin

Creating the Sky



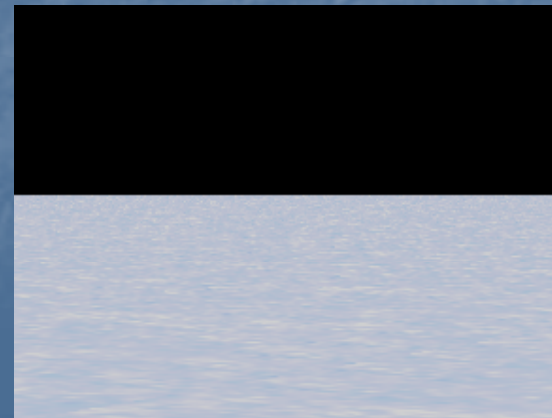
- Go to world and select properties.
- Select "Atmosphere Color" and change it to black.
- Note that this will change the sky to black.
- While you are here, try changing the sky to other colors.

Creating the sky continued



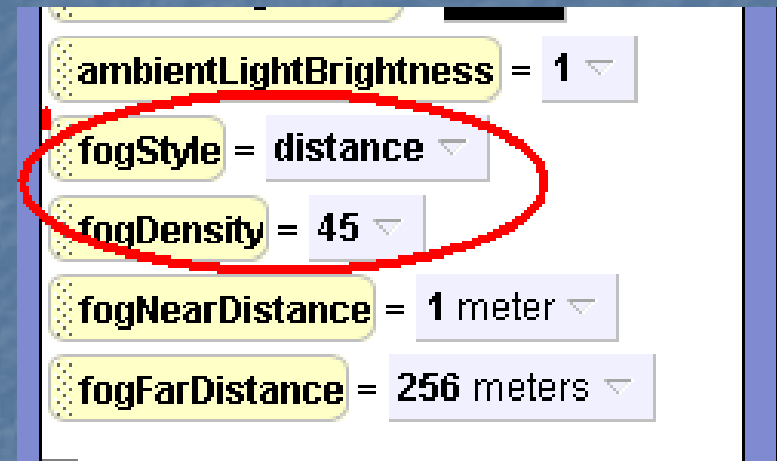
- Your world should now look like this

- Now right below it there is a setting called “Ambient Light Color”, set it to black.
- It should set a shade over your entire world.

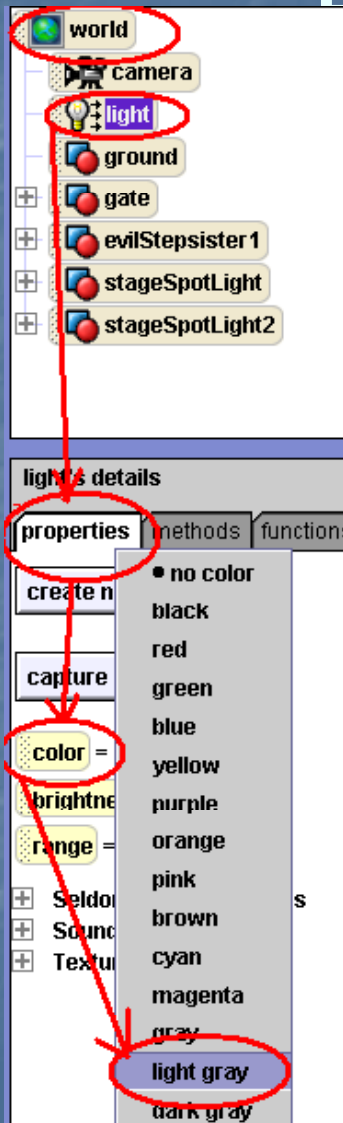


Fog makes your world look fuzzy

- Now go to “fog style” and select “distance”
- Be careful not to select “density” under “Fog style”
- “density” will make your world invisible
- You can control your density level in the “Fog density” tab below “fog Style”.



Environment concluded



- Finally, go to the subcategory of world called "light"
- Scroll down to properties/color and select light gray
- This should make your world look very dark

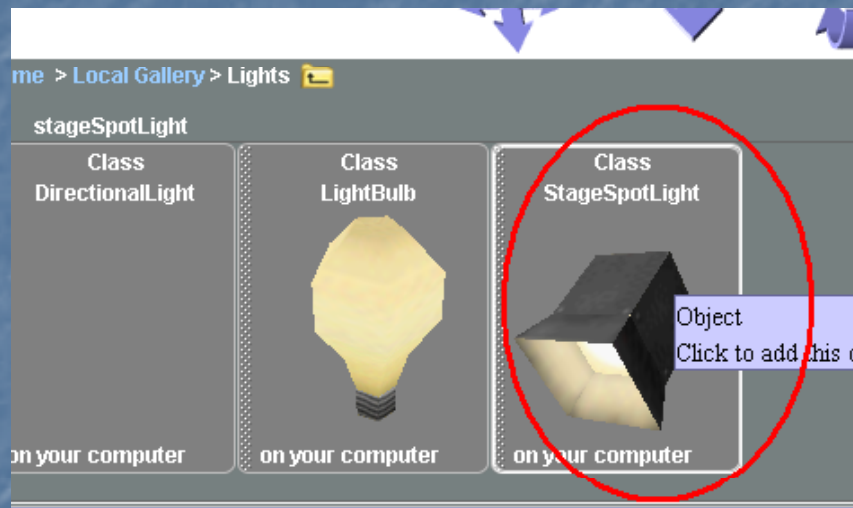


Getting started with specific light

- Lets add some characters to our world as reference points for our light.
- Add one person and one object of your choice to your world



Specific Lighting



- Import two of them into your world
- Your lights should appear beside your person.

- Now, go into "add objects" again and scroll to the folder called "light"
- There should be an object called "Stage Spotlight"



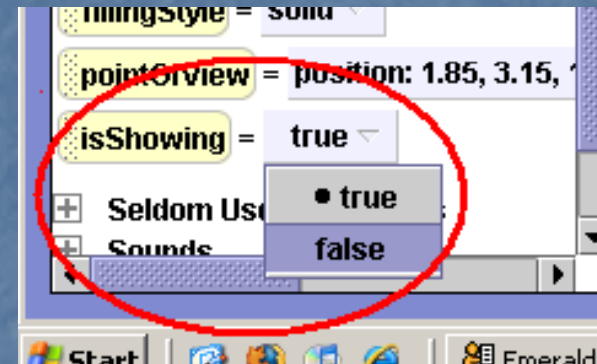
Spotlights



- Note that the Stage lights are up in the air but the light is spotlighting my person
- Each Stage light has two components
 - The stage light: which is the actual physical object that you can drop in.
 - And the Light: which shines on the world
 - Play around with the positioning until you get the lights right

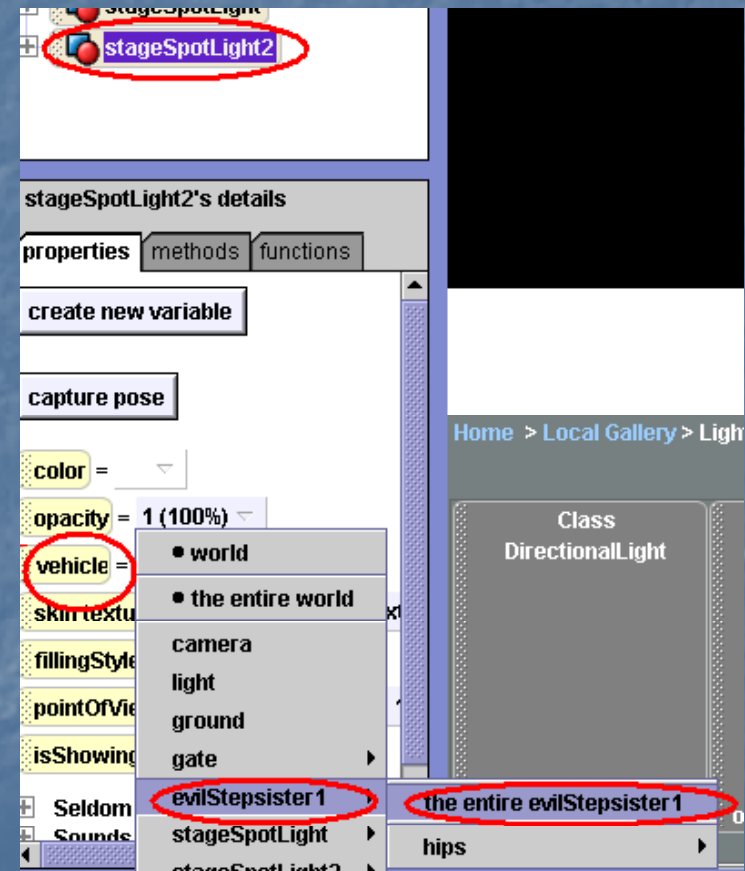
Stage light continued

- Now click on stage spotlight and set “Is showing” to false.
- The physical object should become invisible but the light should still be there.
- Your world should now look like this

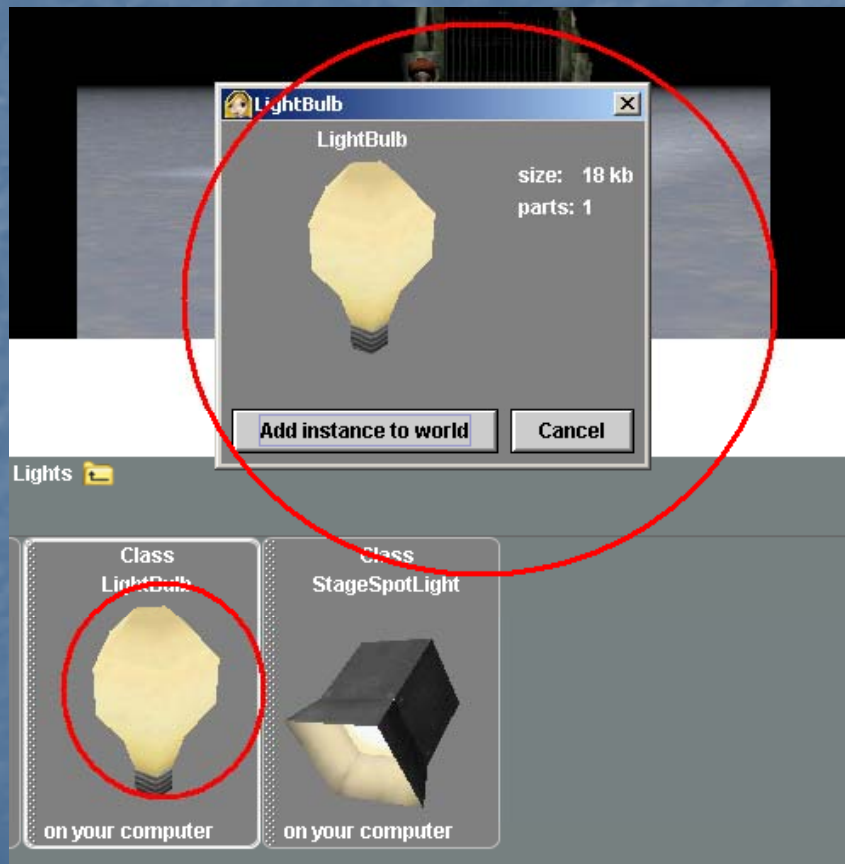


Light as a vehicle

- Now, try setting the stage lights as vehicles to your person.
- Move your person around and see if the light follows them.
- Once you are done, set both of the lights as vehicles to the gate



Light bulbs



- Now go into “add objects” again, under the “lights” folder and add a “light bulb” to your world

Light bulb continued

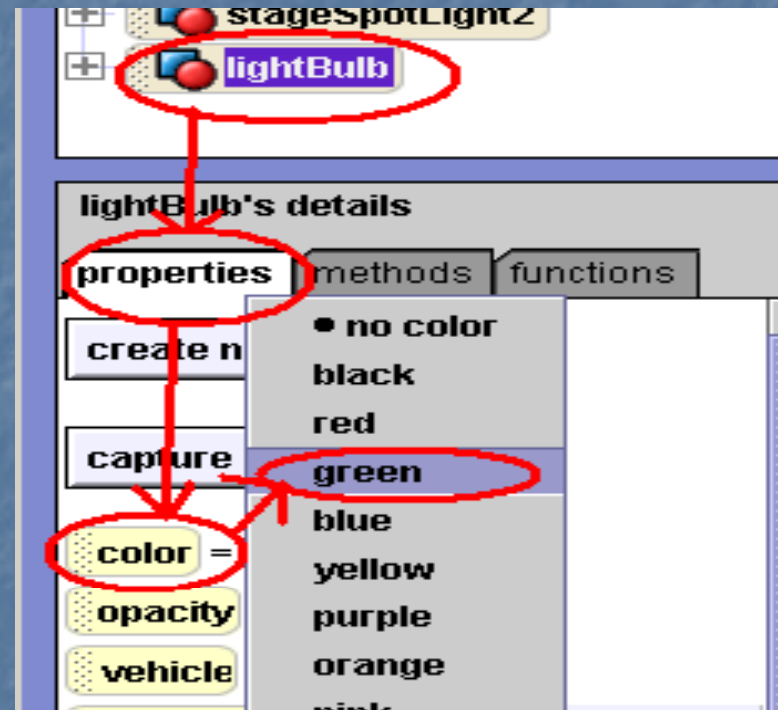
- Note how the light bulb has the same features as the stage light.
- There is a physical object and an area of light.



- Just like the stage light, we can set “is showing” to false for the physical light bulb, but the ambiance of the light will still be there.

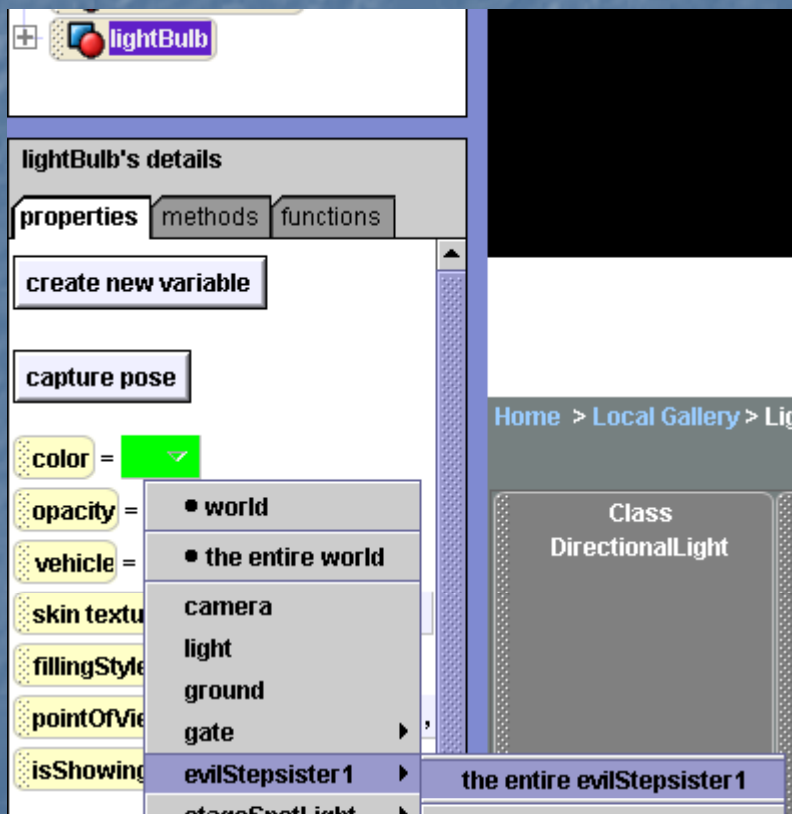
Light bulb continued

- Now, try clicking on the properties from the light bulb and changing the color.
- The ambiance of the light should change



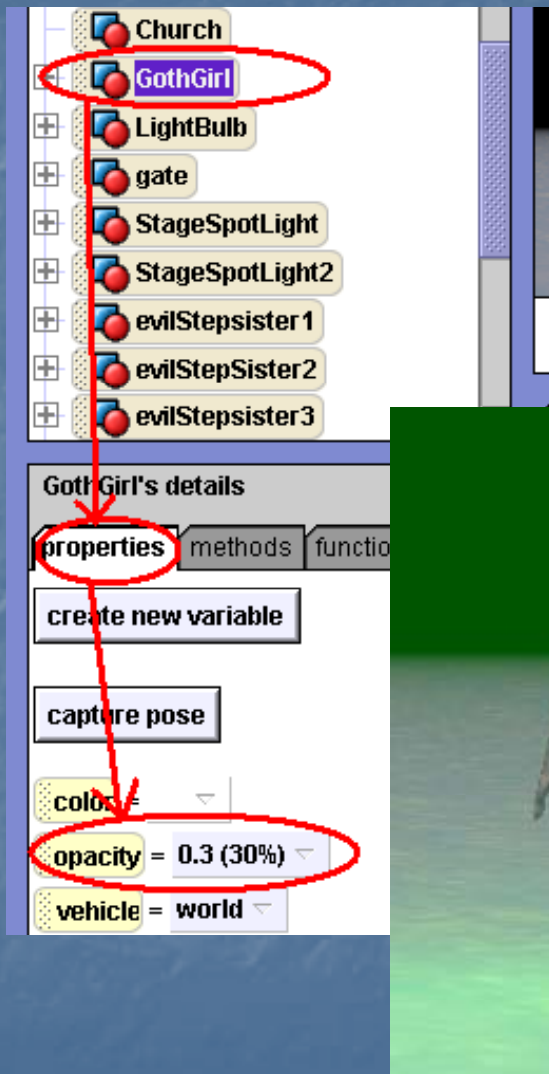
- Note the green hue that is now on our person

Light bulb continued



- Now set the light bulb as a vehicle to your person
- Have her move around, and see if the green light follows her.
- You can turn the light on and off or have it stationary or following a character, simply by using the vehicle and "is showing" properties.

Opacity



- Opacity works much the same way that "is showing" works
- However Opacity can be measured in gradations, while "Is showing" is (fittingly) either showing or not.

Opacity Continued

- Go to the “properties” settings of your person.
- Look for the setting called “Opacity”
- When you click on it there should be a series of percentage gradations

Opacity continued

- Try changing the opacity of your person. You should notice that the smaller the percentage, the more your person seems see through or invisible.



Looping Opacity

A screenshot of a Scratch code editor snippet. It features a 'Loop' block set to 'infinity times' with a 'show complicated version' button. Inside the loop are two 'GothGirl' blocks, each with a 'set opacity to' block (0.2 (20%) and 0.8 (80%) respectively) and a 'duration = 2 seconds' block, followed by a 'more...' dropdown menu.

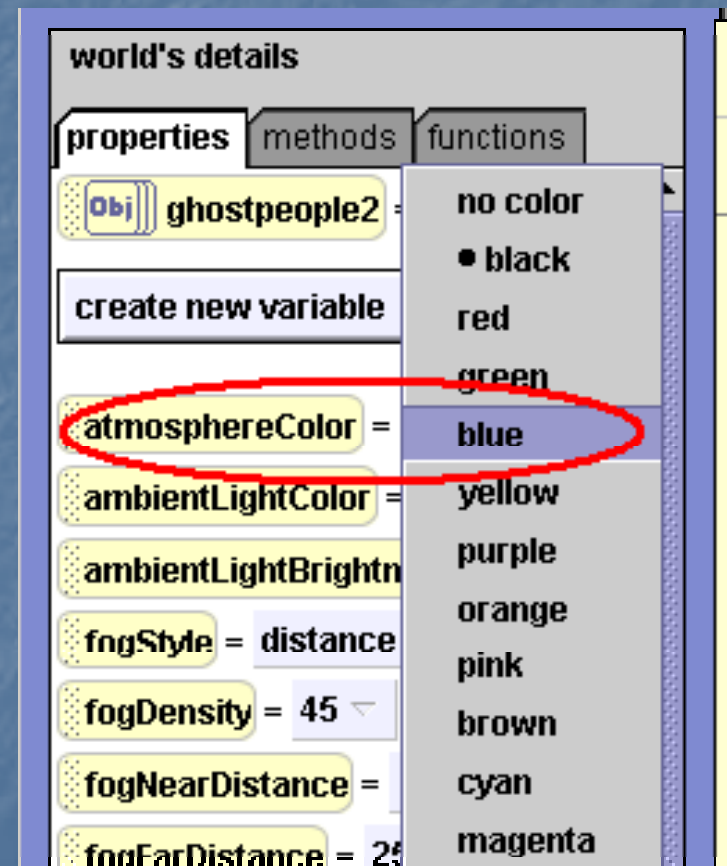
- Now create a new method for your opacity changing code.
- Loop it.
- Now call it in a “when the world starts” event.

A screenshot of a Scratch code editor snippet showing a new method named 'GothGirl.Freaky' with 'No parameters'.

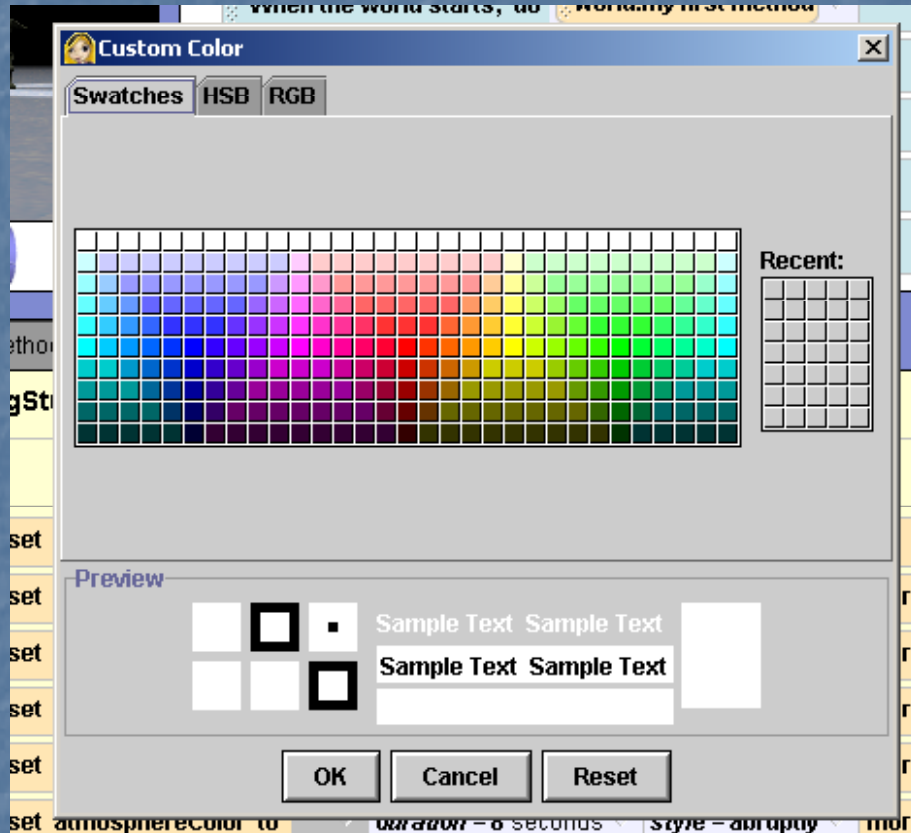
A screenshot of a Scratch code editor snippet showing a 'When the world starts, do' block with a 'GothGirl.Freaky' block attached.

Creating the Dawn

- The Dawn is created in a world level method.
- It is a series of color changes, placed in a "Do in Order" method.
- Color changes can be found under World Properties



Dawn continued



- If you do not wish to use the colors in the main column you can click on "other" at the bottom of the list.
- This should give you a rainbow of shades to choose from

Dawn Continued

world.LightChangingStuff *No parameters*

No variables

| | | | |
|---------|--------------------------|------------------------|------------------------------|
| world ▾ | set atmosphereColor to ▾ | duration = 8 seconds ▾ | more... ▾ |
| world ▾ | set atmosphereColor to ▾ | duration = 8 seconds ▾ | style = abruptly ▾ more... ▾ |
| world ▾ | set atmosphereColor to ▾ | duration = 8 seconds ▾ | style = abruptly ▾ more... ▾ |
| world ▾ | set atmosphereColor to ▾ | duration = 8 seconds ▾ | style = abruptly ▾ more... ▾ |
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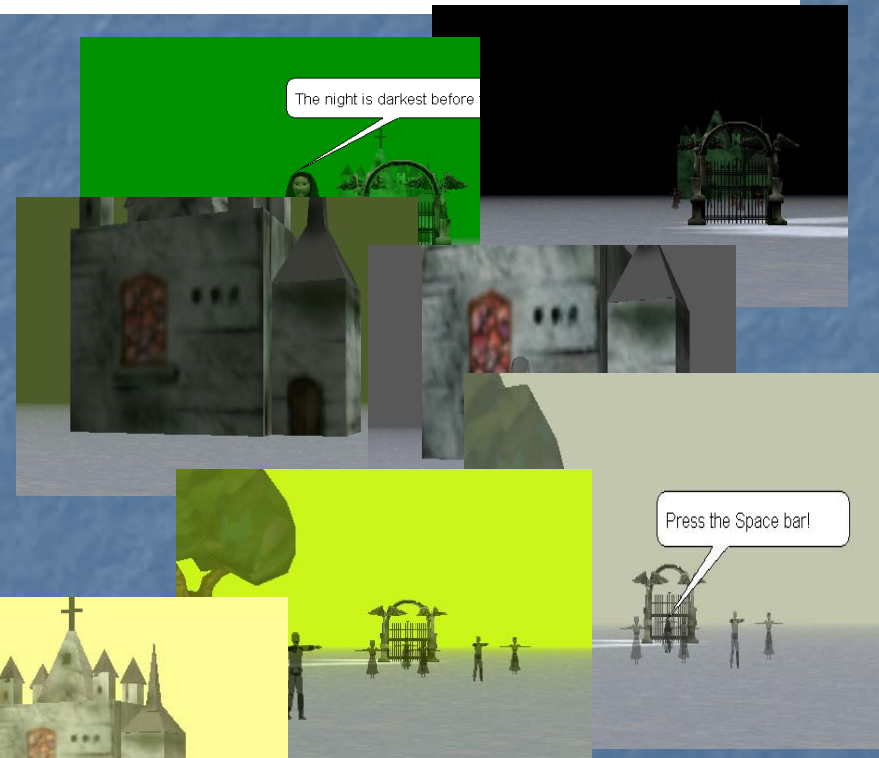
- Once you are done choosing your colors you should have a list like this.
- Set the duration for each color to several seconds.
- Finally set “style” to “abruptly”
- This will make the colors fade in and out instance of roughly changing

Dawn Conclusion

- Now set your Dawn method as an event for “when the world starts” so that it will play in the background of your world
- Now your world should slowly shift to the Dawn as the world plays

When the world starts, do

world.LightChangingStuff ▾



Conclusion

By combining the things that you have learned in this tutorial, in a variety of ways, you can create many new possibilities for your worlds.

And that's all folks!!!!!!!!!!